

REMARKS

Claim 81 Contains no Informalities

Claim 81 stands objected to because of informalities. Claim 81 has been amended per the Examiner's instructions. The amendment to claim 81 is for clarification of the claim language and is not substantive. Therefore, the scope of the amended version of claim 81 is the same as the scope of the original version thereof.

All Pending Claims Fully Comply with 35 U.S.C. § 112, Second Paragraph

Claims 82-84 stand rejected under 35 U.S.C. § 112, Second Paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 82-84 have been amended per the Examiners suggestion and now fully comply with 35 U.S.C. § 112, Second Paragraph. The amendments to claims 82-84 are for clarification of the claim language and are not substantive. Therefore, the scope of the amended versions of claims 82-84 are the same as the scope of the original versions thereof.

Claims 70, 72-75, and 81-85 Are Not Anticipated by U.S. Patent No. 6,199,984 ("Menezes").

Claims 70, 72-75, and 81-85 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,199,984 ("Menezes"). Applicant traverses this rejection for the following reasons.

Menezes teaches a progressive addition lens (PAL) that provides a power progression distribution tailored to the requirements of the wearer's natural eye path, but that does not increase the lens' unwanted astigmatism. Menezes column 1, lines 45-48. Specifically, Menezes teaches a lens comprising, consisting essentially of, and consisting of a first surface having a first channel and a first channel power profile and a second surface having a second channel and a second channel power profile, wherein the channel power profile of the lens is the vector sum of the channel power profiles. Preferably, the lens of the invention is a spectacle lens. Menezes column 2, lines 11 – 20. In one embodiment, the lens is configured to have a continuous, aspheric surface having distance and near viewing or vision zones, and a zone of increasing dioptric power connecting the distance and near zones. Menezes column 2, lines 24-26.

Menezes uses several terms in describing the lens configuration:

Channel: the corridor of vision that is free of unwanted astigmatism of about 0.75 diopters or greater when the wearer's eye is scanning through the intermediate vision zone to the near vision zone and back. Menezes column 2, lines 30-33.

Fitting point: the point on a lens aligned with the wearer's pupil in its distance viewing position when the wearer is looking straight ahead. Menezes column 2, lines 39-41.

Eye path: the course over a progressive or regressive surface that is aligned with the lens wearer's pupil as the eye scans from the fitting point to the wearer's natural near vision position. Menezes column 3, lines 48-51.

By contrast, independent claim 70 is directed to an intraocular lens for use in a mammalian eye including a natural lens having a natural accommodative capability, the intraocular lens comprising:

a single, unitary multifocal lens body sized and adapted for placement in the mammalian eye, and having a central zone with a baseline optical power providing a mean power for distant vision and a plurality of annular regions each having an optical add power;

the plurality of annular regions includes a region having a first optical add power for near vision, the first optical add power having a magnitude so as to provide, in combination with the natural accommodative capability of the natural lens of the eye, enhanced reading vision ability, the lens body further having a second optical add power intermediate between the first optical add power and the baseline optical power.

Independent claim 81 is directed to an intraocular lens for use in a mammalian eye including a natural lens having a natural accommodative capability, the intraocular lens comprising:

a single, unitary multifocal lens body sized and adapted for placement in the mammalian eye and having a central zone having a baseline optical power and a plurality of annular regions each having a different optical power including an annular region having a maximum optical add power and an annular region having an additional optical add power intermediate between the maximum optical add power and the baseline optical power, the maximum optical add power having a magnitude so as to provide, in combination with the natural accommodative capability of

the natural lens of the eye, enhanced reading vision ability, each of the optical add powers being less than the full optical power required for near reading in a pseudophakic subject.

Menezes never teaches nor suggests several of the elements contained in independent claims 70 and 81. For example, the Examiner contends that Menezes teaches an intraocular lens; however, Menezes never teaches an intraocular lens for use in a mammalian eye including a natural lens. Menezes merely suggest that his invention may be applied to an intraocular lens (Menezes column 2, lines 17-19), but provides no enabling disclosure that would enable one skilled in the art to make or use an intraocular lens made in accordance to embodiments of his invention. Indeed, the terms used by Menezes to describe a lens according to his invention, terms such as “fitting point,” “eye path,” and “channel,” are specific to the art of spectacle lenses, but are completely inapplicable to the field of intraocular lenses.

For example, the term “eye path” is defined by Menezes as: “the course over a progressive or regressive surface [of a lens] that is aligned with the lens wearer's pupil as the eye scans from the fitting point to the wearer's natural near vision position.” Thus, the term eye path is applied to a lens, such as a spectacle lens, in which the pupil of the eye moves relative to the lens so that different portions of the spectacle lens, for a given pupil size, provide different types of vision (e.g., near, intermediate, or distant vision), depending on the rotational position of the eye and pupil. However, in the case of an intraocular lens, the pupil is fixed relative to the lens so that a single portion of the intraocular lens, for a given pupil size, provides only one type of vision, irregardless of on the rotational position of the eye and pupil. The vision provided by the intraocular lens may be produced by a single focus, as in a monofocal lens, or by two or more foci, as in the case of a bifocal or multifocal intraocular lens.

The term “fitting point” is defined by Menezes as: “the point on a lens aligned with the wearer's pupil in its distance viewing position when the wearer is looking straight ahead.” This term has meaning in the context of a spectacle lens in which the pupil is aligned to the “fitting point” when the wearer is looking straight ahead, but is aligned with a point different from the “fitting point” when the wearer is looking downward or in some other direction. By contrast, an intraocular lens always has the same alignment with the user's pupil, irregardless of whether the user is looking straight ahead or in some other direction.

Therefore, Menezes teaches the construction of a PAL, such as a spectacle lens, that provides a power progression distribution tailored to the requirements of the wearer's natural eye path; however, Menezes teaches nothing regarding making or using an intraocular lens that would function in a similar manner to a PAL or spectacle lens.

Similarly, Menezes does not teach a unitary multifocal lens body sized and adapted for placement in the mammalian eye, but merely suggest, with absolutely no enabling disclosure, that his invention may be applied to an intraocular lens. The reasons for this assertion by the applicant are the same as those discussed above herein regarding Applicant's assertion that Menezes never teaches how to make or use an intraocular lens for use in a mammalian eye.

Menezes also does not teach, or even suggest, either a central zone or a plurality of annular regions each having an optical add power (or each having a different optical power including an annular region having a maximum optical add power). Rather, Menezes teaches a lens, such as a spectacle lens, that is configured to have a continuous, aspheric surface having distance and near viewing or vision zones, and a zone of increasing dioptric power connecting the distance and near zones. Menezes column 2, lines 24-26. Contrary to arranging these zones in the form of a central zone and a plurality of annular regions, Menezes teaches that location of the near, intermediate and distant zones are determined by projecting the pupil positions on the convex surface of the lens such that, in one specific example, the zones for intermediate and near viewing are found to be 8.5 mm and 17.5 mm vertically below the pupil position during distance viewing, respectively. Menezes column 5, lines 24-27 (regarding the reference to "zones", see also column 5, lines 27-30). Thus, Menezes teaches a plurality of zones that are disposed one below the other and does not teach a plurality of annular regions each having an optical add power. Since the zones of Menezes are oriented one below the other, Menezes obviously also fails to teach a central zone.

At least because Menezes does not teach or suggest all of the limitations of independent claims 70 and 81, Applicant requests the Examiner to indicate that claims 70 and 81 are allowable. Claims 72-75 and 82-85 depend from claims 70 and 81, respectively, and further define the invention of claims 70 and 81. Thus, claims 72-75 and 82-85 are patentable over Menezes at least for the same reasons that claims 70 and 81 are patentable thereover, and are patentable in their own right as well.

Claims 71, 76-80, and 86-88 Are Patentable Over U.S. Patent No. Menezes and U.S. Patent No. 6,197,058 ("Portney").

Claims 71, 76-80, and 86-88 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Menezes in view of U.S. Patent No. U.S. Patent No. 6,197,058 ("Portney"). Applicant respectfully asserts that a prima facie case of obviousness has not been made.

The teachings Menezes are discussed above herein. Portney teaches a corrective intraocular lens system that comprises a primary intraocular lens for implanting into an individual's aphakic or phakic eye. The primary intraocular lens includes an optic portion having an optical axis and an anterior surface and a posterior surface, and includes attachment means for maintaining the optic portion centered along the optical axis of the individual's eye. Portney Abstract.

The Examiner contends that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to look to the teachings of Portney to modify the IOL of Menezes to include a fixation member in order to attach the IOL to the eye. Applicant traverses this contention. As discussed above herein, Menezes does not teach one of ordinary skill in the art to make or use an intraocular lens that would function or exhibit the characteristics of the PAL or spectacle lens disclosed by Menezes. Thus, one would not look to the teachings of Portney to modify the teachings of Menezes, since one of skill in the art would recognize that the teachings of Menezes are directed to a PAL or spectacle lens, while the teachings of Portney are directed to an intraocular lens.

However, even if Menezes were to teach an intraocular lens, one of skill in the art would still not have an incentive to combine the teachings of Portney with Menezes, since the teachings of Portney are directed to an intraocular lens system comprising at least a primary and a secondary intraocular lens. There is no suggestion within Menezes that one incorporate his invention into a lens system. Rather Menezes teaches a single PAL or spectacle lens that provides a power progression distribution tailored to the requirements of the wearer's natural eye path, but that does not increase the lens' unwanted astigmatism.

Even if one were to combine the teachings of Portney with Menezes, neither of these teachings, either alone or in combination, teach embodiments of Applicant's invention as disclosed in independent claims 70 and 81 or in claims 71, 76-80, and 86-88, which depend on

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claims 70 and 81. As discussed above herein Menezes does not teach unitary multifocal lens body sized and adapted for placement in the mammalian eye, a central zone, or a plurality of annular regions each having an optical add power. Portney is also silent as to these elements of claims 70 and 81.

Thus, at least because there is no incentive to combine Portney with Menezes and at least because the combination of Portney and Menezes do not teach all the limitations of claims 71, 76-80, and 86-88, Applicant requests the Examiner to indicate that claims 71, 76-80, and 86-88 are allowable.


CONCLUSION

For the foregoing reasons, Applicant respectfully asserts that the claims now pending are allowable over the prior art of record, namely Dunn, Menezes et al., and Portney, either alone or in combination. Therefore, Applicant earnestly seeks a notice of allowance and prompt issuance of this application.

The Commissioner is hereby authorized to charge payment of the following fees associated with this communication to Deposit Account No. 502317.

Respectfully submitted,
Advanced Medical Optics

Dated: _____
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By:  _____
David Weber
Registration No. 51,149
Agent for Applicant
Customer No. 33357
(714) 247-8232